Long Division with Decimals

Decimals • Answer Key

ANSWER KEY • Amplify Alignment: Grade 6 Accelerated, Unit 3, Lesson 18

1. Write the decimal for each quotient.

a 3 ÷ 4 — **0.75**

b 1 ÷ 5 — **0.2**

c 7 ÷ 10 — **0.7**

d 2 ÷ 8 — **0.25**

2. Use long division to show that each equation is true.

a 9 ÷ 20 = 0.45

90 tenths ÷ 20 = 4 tenths R 10 tenths; 100 hundredths ÷ 20 = 5 hundredths

b 3 ÷ 8 = 0.375

30 ÷ 8 = 3 R 6; 60 ÷ 8 = 7 R 4; 40 ÷ 8 = 5

c 21 ÷ 25 = 0.84

210 ÷ 25 = 8 R 10; 100 ÷ 25 = 4

3. Use long division to find each quotient. Write your answer as a decimal.

a 37 ÷ 4

9.25

b 43 ÷ 8

5.375

c 58 ÷ 5

11.6

4. Use long division to find each quotient. Write your answer as a decimal.

a 417 ÷ 6

69.5

b 293 ÷ 4

73.25

c 806 ÷ 8

100.75

5. Use long division to find each quotient. Write your answer as a decimal.

a 360 ÷ 48

7.5

b 1450 ÷ 16

90.625

c 6230 ÷ 40

155.75

6. Gas mileage tells how many miles a car can travel on one gallon of gas. Use division to complete the table.

Car	Miles Driven	Gas Used (gallons)	Miles per Gallon
Car A	426	12	**35.5**
Car B	357	14	**25.5**
Car C	513	18	**28.5**

7. Grace reasoned, "$\frac{13}{20}$ is equivalent to $\frac{26}{40}$ and to $\frac{65}{100}$, so the decimal for $\frac{13}{20}$ is 0.65."

a Use long division to show that Grace is correct.

13 ÷ 20: 130 ÷ 20 = 6 R 10; 100 ÷ 20 = 5. So 13 ÷ 20 = 0.65

b Use long division to check whether the decimal for $\frac{26}{40}$ is also 0.65.

26 ÷ 40: 260 ÷ 40 = 6 R 20; 200 ÷ 40 = 5. Yes, 26 ÷ 40 = 0.65

8. Noah calculated 1356 ÷ 30 and got 4.52. Priya says he made a mistake. Is Priya correct? Explain your thinking.

Yes. 30 × 4.52 is only about 135, not 1356. Noah lost a place value. 1356 ÷ 30 = 45.2.

Noah's answer

1356 ÷ 30 = 4.52